1. (Amended) A ballast circuit for supplying AC voltage and current to a gas discharge lamp mounted in a troffer upon the application of DC voltage and current, said troffer having a ground connection, said circuit comprising:

a transformer including a first and a second primary winding;

first and second transistors, each having base, collector and emitter terminals, said base terminal of each said transistor coupled to a drive terminal of said second primary winding;

a constant current flow network coupled to said drive terminal so as to maintain said circuit in an oscillating mode;

said first primary winding configured to be coupled across said at least one lamp such that a capacitance at a first end of said lamp relative to said transformer is equal to a capacitance at a second end of said lamp relative to said transformer; and

a current supply source coupled to said troffer ground connection,

[wherein a net current induced via said at least one lamp and said current supply source into said troffer is substantially equal to zero.]

2. The apparatus of claim 1, wherein said capacitance at said first and second ends of said at least one lamp is provided by a capacitor.

3. The apparatus of claim 1, further comprising a DC supply voltage source coupled to said transformer for supplying a variable DC supply voltage.

4. The apparatus of claim 3, wherein said current supply source is a positive supply line of said DC supply voltage source.

5. The apparatus of claim 4, wherein said positive supply line of said DC supply voltage source is further coupled to said drive terminal via a resistor for providing start-up current.

6. The apparatus of claim 5, wherein said positive supply line of said DC supply voltage source is further coupled to a center tap terminal of said first primary windings.

7. The apparatus of claim 3, wherein said DC supply voltage source has negative and positive supply lines, said circuit further comprising:

a capacitor coupled to and disposed between said negative and positive supply lines; and

an inductor disposed in said negative supply line,

wherein said circuit is configured to reduce a current flow in one said supply line relative to said other supply line.

CANCEL CLAIMS 8-16